

ABSTRACT

The present digital camera system includes multiple interchangeable lens barrels having a same specification, and a digital camera having a first camera body to which the interchangeable lens barrel can be attached or another digital camera having a second camera body. The first camera body contains a first image pickup element having a reference pixel pitch and a first optical LPF (low pass filter). The second camera body contains a second image pickup element having a pixel pitch different from the reference pixel pitch, a second optical LPF and a compensating optical element. The compensating optical element is a glass plate having no double refraction characteristic for compensating an amount of the change in optical path length due to the decrease in thickness of the second optical LPF with respect to the first optical LPF. The present digital camera system allows the replacement of an interchangeable lens without generating various kinds of aberration among camera bodies having different pixel pitches.

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